

---

## Rule WLM115:      Service class did not have Begin\_to\_end samples

---

**Finding:** CPExpert has detected that a large percent of the begin\_to\_end (BTE) phase samples were in the Ready state. This finding applies only to service classes representing CICS/ESA Version 4 transactions.

**Impact:** This finding means that CICS transactions were waiting for dispatch in the Transaction Owning Region but were not dispatched by CICS.

**Logic flow:** The following rules cause this rule to be invoked:

- Rule WLM104:      Subsystem Service Class did not achieve average response goal
- Rule WLM105:      Subsystem Service Class did not achieve percentile response goal

**Discussion:** CICS/ESA Version 4.1 reports two separate views of the transactions: the *begin\_to\_end phase* and the *execution phase*<sup>1</sup>.

- **Begin\_to\_end phase.** The begin\_to\_end phase starts when CICS/ESA Version 4.1 has classified the transaction<sup>2</sup>. This action normally is done in a CICS Terminal Owning Region (TOR).
- **Execution phase.** The execution phase starts when either CICS/ESA Version 4.1 or IMS Version 5 has started an application task to process the transaction. For CICS, this normally is done in a CICS Application Owning Region (AOR).

CICS transactions typically enter the system via a CICS TOR. The transactions receive some initial processing in the TOR and are routed to an AOR for actual application processing. CICS signals the beginning of the execution phase for the transaction when the transaction is received by the AOR.

The AOR to which the transaction is routed can reside on the system on which the TOR resides, or the AOR can reside on another system in the sysplex. If the AOR resides on the same system as the TOR, SMF data on the system will reflect both the begin\_to\_end phase information and the

---

<sup>1</sup>IMS Version 5 reports only *execution phase* samples.

<sup>2</sup>Classifying the transaction into a service class is actually done by the Workload Manager when CICS issues the IWMCLSFY macro. Please refer to Section 4 for a more complete discussion of the subsystem work manager (e.g., CICS) interaction with the Workload Manager.

---

execution phase information. However, if the AOR resides on a different system in the sysplex, SMF data from that system will not reflect begin\_to\_end phase information for the transaction.

CPEXpert detected that a transaction service class exceeded its response goal on at least one system in the sysplex being analyzed. However, there were no begin\_to\_end samples describing the service class on the local system. Consequently, CPEXpert analyzes the Execution Phase on the local system. CPEXpert produces delay-related information based on the Execution Phase, and produces delay-related information for the server(s) on the local system providing service to the transaction service class.

CPEXpert produces Rule WLM115 to provide information about the delays on the local system. The following example illustrates the output from Rule WLM115:

**RULE WLM115: SERVICE CLASS DID NOT HAVE BEGIN\_TO\_END PHASE SAMPLES**

CICS is a "served" Service Class (e.g., IMS or CICS transactions). However, this service class did not have any Begin\_to\_End samples on System J80, while the service class had a number of ended transactions in the Execution Phase. Further, the CICS Service Class missed its performance goal on at least one other system. CPEXpert assumes that the transactions have been shipped from another system to System J80. CPEXpert analyzed delays to the CICS Service Class for measurement intervals in which the service class missed its performance goal on another system. CICS was served by CICSRRGN.

MEASUREMENT INTERVAL	TOTAL TRANS	AVERAGE TIME IN EXECUTION PHASE	PRIMARY,SECONDARY CAUSES OF DELAY
13:00-13:30,26MAR1996	87,239	0.711	ACTIVE(44%),WAIT I/O(38%)

**Suggestion:** There are no suggestions with this finding. CPEXpert will continue analysis and other rules may be produced to provide more information. Please refer to Rule WLM104 or Rule WLM105 for information about the causes of delay to the subsystem transaction service classes.

**Reference:** CICS/ESA Version 4.1 Performance Guide  
Section 2.6.3.1: Service Definitions

CICS/TS Release 1.1 Performance Guide  
Section 2.6.3.1: Service Definitions

CICS/TS Release 1.2 Performance Guide  
Section 2.6.3.1: Service Definitions

---

CICS/TS Release 1.3 Performance Guide  
Section 2.5.7.1: Service Definitions

CICS/TS for z/OS Release 2.1 *Performance Guide*: Chapter 8 (Managing Workloads - Setting up service definitions).

CICS/TS for z/OS Release 2.2 *Performance Guide*: Chapter 8 (Managing Workloads - Setting up service definitions). |